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WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

In Ala., Ark., Fla., Ga., Ky., Md., Miss., N.C., S.C., Tenn., Tex., Va.

Small Supply of Tift Sudan Seed for 1947

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Southeastern farmers who expect to plant Tift Sudan grass in 1947 should place orders with their seed dealers as early as possible, Dr. Glenn W. Burton, USDA plant scientist, advises. There will not be enough seed to go around.

Tift Sudan, which was developed at the Georgia Coastal Plain Experiment Station to meet the need of a good forage grass in the Southeast, was introduced in 1945. Although tried out only one year by the general farming public, it has proved popular. Growers like the high forage yield that continues late in the grazing season.

No seed was available in 1946 on account of drought. At the present time, seed of Tift Sudan is being produced in Texas, where it can be grown in greater abundance than in the Southeast. There are fewer crop pests and the Texas climate is generally more favorable. A repetition of the drought that destroyed the plantings in the Southern Great Plains that would have provided Tift Sudan seed for 1946, also cut down seed production for the coming year's crop.

Reports indicate, however, that around 150,000 pounds of Tift Sudan seed will be available this season. It will go to farmers who get their orders in early.

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United States Department of Agriculture

In Arizona, Colorado, Kansas, Nebraska, Nevada, New Mexico, Oklahoma, Texas, Utah, Wyoming

ICE CREAM GRASS COMES BACK

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A once flourishing native grass, almost destroyed by over-grazing, has proved one of the most valuable and palatable grasses under trial at the Department of Agriculture's Southern Great Plains Field Station, Woodward, Okla. The common name for it is Sand Lovegrass but cattlemen call it "ice cream grass" because their livestock like it so well. Seed companies now have moderate supplies of this grass seed and the supplies are being increased.

Tests on Sand Lovegrass were started in 1937 when scientists at the Station collected 180 pounds of seed by hand. They distributed some of the seed for testing by State experiment stations, county agents, soil conservationists, and stockmen.

Results show this lush growing fine-stemmed grass to be one of the better of the Great Plains native grasses in year-long nutritive value. It equals the Blue Grama and Buffalo grasses in protein and mineral content and contains more vitamin A. Sand Lovegrass has proved equal or superior to other native grasses in grazing trials at the Woodward Station. It holds a high proportion of food value when winter cured.

A perennial, Sand Lovegrass renews growth from roots each year. It reseeds better than most other native grasses, starts growing earlier in the spring, produces more forage, and stays green much later in the fall. Trials at Woodward show the value of Sand Lovegrass in reseeding thin pastures and sandy, depleted range.

Although it occurs naturally only on very sandy soils from Nebraska southward through the Great Plains, Sand Lovegrass has done remarkably well when seeded on heavy soils.

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In Alabama, California, Colorado, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana., Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Ohio, Penna., Rhode Island, South Carolina, Vermont, Virginia, Wisconsin

NEW LIMA BEAN, FORDHOOK 242, IS ALREADY IN PUBLIC FAVOR

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The New lima bean, Fordhook 242, released by plant breeders of the U. S. Department of Agriculture in 1943, has increased in popularity with unusual rapidity. By 1946 the production for seed purposes reached 2,500,000 pounds and wholesale seedsmen report all this seed already marketed. It is another example of the welcome the public has been showing in recent years for improved varieties of all sorts of crops, particularly those developed to meet specific needs of farmers.

A good home garden as well as market lima, Fordhook 242 was one of the All-America Selections of superior new vegetables in 1944. It has proved well adapted along the Atlantic Coast from Long Island to Florida, where most of the limas for the fresh trade are grown, in the Central States and in California where quantities are grown for processing.

This successful new vegetable came out of six generations of selection from plants able to produce good crops in hot weather. The pods are easy to open and the green-coated beans usually run 3 to 4 to the pod.

Fordhook 242 seed will probably be plentiful enough for everybody in another year. Although the wholesalers have sold out this year, the retailers have them and many people will be able to grow the variety this coming summer.

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WEEKLY NEWS SERVICE
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United States Department of Agriculture

In all States except South and Southeast

Using Fertilizer To Renovate Lawns

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The acute shortage of Kentucky bluegrass seed leads grass specialists of the U. S. Department of Agriculture to emphasize the value of fertilizer in lawn renovation. They say the householder whose lawn has a fairly uniform but thin stand of grass will get a better return from money spent for fertilizer than for seed. Fertilizer can be applied to lawns through March. It is undesirable later in the season and in the summer because it stimulates crabgrass without helping lawn grass to any extent.

For good grass growth, the scientists recommend treatment with a complete commercial fertilizer having a high proportion of nitrogen and lower proportions of phosphorous and potash such as found in grade 10-6-4. Other proportions as in grades 5-10-5 and 4-12-4 may also be used with good effect.

The scientists recommend applications of from 10 to 15 pounds of fertilizer per 1,000 square feet. The amounts will vary depending on the grade of fertilizer used. Heavier applications are needed if the turf is poor. To avoid burning the lawn, it should be applied when the grass blades are dry and immediately washed into the soil by generous waterings. Organic materials such as sewage sludge compound will also give good results. The nitrogen is more slowly available, thus giving response over a longer period of time than inorganic fertilizer.

For reseeding bare patches and thin turf areas, the specialists suggest grasses which may be substituted for part - 40 to 60 percent - of the bluegrass seed and combined with it. Redtop, which grows rapidly, will provide satisfactory temporary turf in late spring seedlings. Chewings or red fescue combines well with bluegrass in providing turf for shaded areas. Seed of grass mixtures should be sown at the rate of 3 to 4 pounds per 1,000 square feet, the rate depending upon the condition of the turf. Fair results can be obtained from seeding up to April 15.

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United States Department of Agriculture

In South and Southeast

Fertilizer May Aid Lawns Injured By Cold

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Fertilizer may benefit lawns injured by the severe cold weather of this past winter say grass specialists of the U. S. Department of Agriculture. The first application should be made as early in March as possible. Later in the season it may be necessary to apply additional nitrogen fertilizer to encourage the development of a dense turf.

For good growth, agricultural scientists recommend treating the lawn with a complete commercial fertilizer that has a high proportion of nitrogen and lower proportions of phosphorous and potash such as found in grades 10-6-4. Other proportions as in grades 5-10-5 and 4-12-4 may also be used with good effect.

The scientists recommend applications of from 10 to 15 pounds of fertilizer per 1,000 square feet. The amounts will vary depending on the grade of the fertilizer used. Heavier applications are needed if the turf is poor. To avoid burning the lawn, it should be applied when the grass blades are dry and immediately washed into the soil by generous waterings. Organic materials such as sewage sludge compound will also give good results. The nitrogen is more slowly available thus giving response over a longer period of time than inorganic fertilizer.

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United States Department of Agriculture

EXCLUSIVE TO EXTENSION EDITORS

In all States

Your Garden Soil Can Be Improved

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The ideal garden soil is loose, granular, spongy, and open. It allows air and water to get down through to plant roots. Instead of this ideal soil, however, many home gardens are planted in soil that is sandy and droughty or heavy and tight and hard to work. Others are poor and infertile.

Soil scientists of the U.S. Department of Agriculture point out that in many cases it is possible to build up poor garden soils. The ingredients for improvement are manure, compost, fertilizer, and in many cases, lime. Manure and compost make the soil easier for plants to grow in and easier for the gardener to work. They also add plant food. Chemical fertilizers also add plant food. Lime counteracts the effect of soil acids and furnishes calcium and magnesium needed by plants.

Most garden soils can be improved with liberal supplies of manure. If the manure is fresh and contains considerable straw it should be spaded or plowed under as early in the spring as possible. If the supply of manure is short, work it into the soil where it will do the most good.

Turning sod under in your garden this season will supply some compost. Break up the big clumps of sod and heavy masses of vegetation and then spade them under. For the future start a compost pile for use in improving the organic material in the garden soil.

Unless the soil is in top condition through having been built up with lots of manure, plants grown in the garden need chemical fertilizer. The most effective way to apply the fertilizer is to place it in bands 2 inches on either side of the row and slightly below the seed.

Most garden soil in the eastern part of the country needs lime. Common builders' lime, ground limestone, or wood ashes that have been kept under good cover may be used for liming the soil.

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United States Department of Agriculture

EXCLUSIVE TO EXTENSION EDITORS
In all States

Choosing Good Tools for the Home Garden

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Good tools help make gardening easy. Select them with care. Garden specialists of the U.S. Department of Agriculture say it is better to have a few, simple, lightweight but substantial tools than to buy many pieces of poorly designed equipment made of cheap or low grade materials.

Work in a small garden calls for a shovel or spading fork with a long handle, a steel bow rake, a 7-inch common hoe with socket handle fitting, a strong cord for laying off rows, and enough garden hose to reach all parts of the plot. In transplanting, a trowel is useful but not essential. If the soil is properly prepared, plants can be set out more easily with the hands alone than with a trowel.

In a garden larger than 2,000 square feet, the home gardener will find a sturdy wheel hoe worthwhile. It can be used for most work done with a common hoe and with much less effort. The single wheel type is probably the easiest to handle although some gardeners prefer other useful styles.

Tools will last longer and do better work if they are kept clean and bright. After each use they should be thoroughly cleaned and wiped with an oiled rag to prevent rusting. Hand hoes as well as wheeled implements should be kept sharp for doing good work with little effort.

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United States Department of Agriculture

In All States.

SAVING HOME-GROWN SEED DOES NOT PAY

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Many gardeners ask if it pays to save home-grown vegetable seed. The answer is generally no, say U. S. Department of Agriculture garden specialists.

Home-grown seed is not likely to be as pure a varietal strain as the seed you buy. Unless the garden contains only one variety of each vegetable and is separated by at least a quarter of a mile from other gardens or seed producing fields, cross pollination in some vegetables will cause the varieties to be "mixed."

Seed from last year's garden may carry disease to infect the new crop. Seed borne diseases may occur in cabbage, cauliflower, Brussels sprouts, broccoli, collards, kale, kohlrabi, mustard, radishes, turnips, beans, peas, cucumbers, muskmelons, watermelons, tomatoes, peppers, eggplant, celery, and carrots.

Few homes have facilities for adequately drying and storing seed. For good germination most seeds need to ripen during sunny weather or be dried quickly when removed from the fruit and then stored in a dry, cool, insect and rodent proof place.

Certain vegetables such as beets, chard, Brussels sprouts, cabbage, carrots, kale, onions, parsley, and turnips require storage of the plants or roots over winter to produce seed. The home gardener rarely has facilities necessary to do this successfully.

For these reasons and because the home gardener needs only small amounts of seed of any given kind or variety, the specialists advise most gardeners to buy the garden seed fresh each year.

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United States Department of Agriculture

In all States.

Dust Treatment Protects Seeds From Damping-Off

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When a gardener gets a poor stand of plants in carefully prepared soil, he usually blames it on poor seeds. Actually, the failure, say garden specialists of the U. S. Department of Agriculture, is more often due to attacks of fungi or molds that cause the seeds to decay or the young seedlings to die before they emerge from the soil.

This trouble is known as damping-off. You can generally avoid it by dusting the seeds with one of several chemical compounds sold for this purpose under names such as Arasan, Spergon, Cuprocide, and Semesan. They can be used safely on most vegetables and flower seed. Cuprocide, however, should not be used to treat seeds of cabbage, broccoli and related crops, nor on lima beans.

Follow the manufacturer's directions exactly, the garden specialists advise. For the treatment use a jar or other airtight container that will be not over half full when the seeds are in it. Add the proper amount of dust, close the container tightly, and shake and turn it for 1 to 2 minutes. Then screen off the extra dust and the seeds are ready to plant.

You can treat small packets of seeds by opening one corner of the packet, adding as much dust as you can lift on the point of a penknife blade, closing the packet, and shaking it well.

The garden specialists add this caution. Never inhale any of the dust and do not allow it to remain on the skin. Wash it off at once with soap and water.

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United States Department of Agriculture

In all States

BOTH DUST AND SPRAY NEEDED IN GARDEN

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Home gardeners often ask which is the better way to apply fungicides, as a dust or as a spray. The answer, say USDA garden specialists usually depends on the fungus to be controlled. Spraying is an effective check in some cases, dusting in others. There are also times when either dust or spray may be used. In these cases, dust has the advantage of being easy to prepare and apply, but spray is often preferable because spray sticks to the plants better than dust and it can be applied even when light winds are blowing.

For treating anthracnose in beans, tomatoes, cantaloupes, and peppers, the specialists recommend sprays of commercial compounds such as Zerlate, Fermate, or Dithane. Dust or ordinary sulfur may be used to check rust and powdery mildew of beans. Sulfur dust, however, should not be used on cucumbers or melons, as it damages these crops. Copper fungicides, either Bordeaux mixture or one of the "fixed" copper compounds, are used either as dust or spray to control blight in tomatoes and potatoes.

The effectiveness of a fungicide depends on how thoroughly it covers the plant. In a small garden a little fungicide will go a long way. From 2 to 3 ounces of the dust mixture or from 1 to 2 quarts of liquid spray will provide treatment for 50 feet of plants of medium size such as beans. Full grown tomato plants will require more.

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United States Department of Agriculture

In all States

Shallow Cultivation Best for Home Garden

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Weeds have no place in the home garden. They rob the cultivated plants of water, plant food, and even space and light. Cultivation to control weeds is a necessary part of garden care, but the fight against weeds should be waged with judgment.

U. S. Department of Agriculture garden specialists point out that while it is desirable to keep the surface soil loose, there is little to be gained by hoeing or cultivating oftener than necessary to control weeds. And once the seedbed is thoroughly prepared, only light surface stirring of the soil throughout the summer is required for most garden crops. Deep cultivation is not only hard work for the gardener, it is also usually injurious to plant roots.

Thorough soil preparation before planting is the most important step in cultivation, according to the specialists. It involves careful plowing or spading that completely turns and pulverizes the top few inches of soil. Then as soon as the soil is dry enough after an irrigation or rain, it should be lightly stirred to kill weeds and to leave the surface of the soil in a loose, friable condition. It is a serious mistake to work the soil when it is wet. This applies especially to heavy-textured land which is likely to remain full of clods and lumps the rest of the season if worked when wet.

Sharp hoes or other tools used for scraping the surface or sweeps on wheel hoes or garden tractors are ideal cultivating tools for the garden. They make it possible to scrape the top layers of soil and destroy weeds without going deep enough to injure plant roots.

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United States Department of Agriculture

In all states

Do Not Use 2,4-D to Weed Garden

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Stick to your hoe for killing weeds in vegetable crops, USDA scientists advise home gardeners. The new weed killer, 2,4-D which can be used effectively to rid lawns of dandelions, plantain, and other broad leaf weeds, is not recommended for vegetable gardens.

Crops such as tomatoes, beans, and peas and other vegetables usually grown in the home garden are highly sensitive to 2,4-D and like the weeds will be destroyed if some of the spray drifts on them while you are treating weeds with the chemical.

The weed killer is much more powerful and long-lasting in effect than generally realized. A small residue of 2,4-D in spraying equipment can injure vegetable plants. For this reason, agricultural scientists caution gardeners about using the same equipment for spraying the lawn and garden. Unless the sprayer is thoroughly cleaned with warm ammonia water after 2,4-D is used to treat the lawn, it may contain enough residue of the weed killer to harm garden crops. Use about two teaspoons of household ammonia to a gallon of warm water to clean the sprayer.

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United States Department of Agriculture

In all States

Tomato Late Blight Can Be Controlled

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Late blight of tomatoes, the disease that caused serious damage in many States east of the Mississippi river last year, can be controlled, USDA garden specialists advise.

The blight, which shows up in blackened and shriveled leaves and a firm, brown decay of the fruits, is produced by the same fungus that causes late blight and rot of potatoes. It lives over winter in potato tubers, in tomato plants in greenhouses in the North, and on tomato plants in fields and gardens in the extreme South. Late blight is not likely to be serious in hot, dry seasons, but it spreads rapidly in cool, wet weather, when rain and wind carry the spores from plant to plant, and from field to field.

Garden specialists offer these rules for controlling the blight:

1 - Avoid planting tomatoes directly after potatoes or near them.

2 - Use disease-free plants that show no dark spots on the stems.

3 - Give the plants plenty of room so they can dry quickly after rain or heavy dews.

4 - Protect tomato plants by spraying or dusting them with a copper fungicide. Use either a 4-4-50 Bordeaux mixture or one of the so-called "fixed" copper compounds. Follow the manufacturer's directions. Start spraying or dusting 4 weeks after the first clusters bloom and repeat at 10-day intervals for sprays and 7 days for dust. Use a good knapsack or barrel sprayer or a good-sized duster to keep the plants well covered.

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United States Department of Agriculture

In all States

Prune With a Plan, Gardeners Are Told

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Plan before you prune trees and ornamental shrubs, then use the knife with care and restraint, advise U. S. Department of Agriculture garden specialists.

If your purpose in pruning is to make the tree or shrub more vigorous, you will need to remove dead wood and broken limbs, cut out stubs that are caused either by broken limbs or improperly made cuts in previous prunings, and take out interfering branches. You may also need to thin out top branches to offset injury due to transplanting or other causes.

If your objective is to improve the form, plan pruning to follow the natural outline of the plant. Remove only misshapen or crossing branches or thin out branches that prevent the plant from assuming its characteristic shape.

If you are pruning to produce large attractive blooms in flowering shrubs, remove old growth and weak and crossing branches when the shrub has finished flowering for the season.

Whether you prune to promote vigor, to improve appearance, or to modify flowering, you can get more satisfactory results if you have a clear idea of the goal before you start cutting away branches and if you prune lightly. Severe pruning may cause permanent injury to trees and shrubs.

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United States Department of Agriculture

In all States

Strawberries are Well Suited to Home Garden

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Strawberries are a favorite fruit for the home garden in most parts of the United States. They are adapted both to the smallest plantings where a row only a few feet long may furnish delicious berries for the table and to the large farm garden where quantities are frozen and preserved for out-of-season use.

Fruit specialists of the U.S. Department of Agriculture offer these suggestions to the home gardener who is selecting strawberries for the garden. The new Suwannee is a high flavored variety recently introduced for home garden use. It is adapted for growth throughout the South from 100 miles north of the Gulf of Mexico to Maryland and southern Missouri. The Midland, a high-flavored, early, large variety suitable for freezing, may be grown in the area from southern Maryland to southern New England, and as far west as Missouri. Fairfax, a sweet, high flavored, second early variety, Sparkle, a very good strawberry for midseason, and Fairpeake, a new high-flavored late variety are all adapted for the same area as Midland. Howard 17 (Premier) is still the standard for northern United States from New England across to Minnesota. Marshall is still the standard on the Pacific Coast. Everbearing varieties such as Gem, Rockhill, Green Mountain, and Maston succeed best from northern New Jersey across to Iowa and Oregon. The home gardener may plant one variety or grow several varieties of strawberries to cover a long season and different uses.

In a small garden a dozen plants may supply table needs. If the runner plants are spaced about 8 inches apart and all late runners picked off after a full stand has been rooted, it is usually possible to obtain a quart of berries to the row foot in rows where the vines have an 18-inch spread. The same yield per foot of spaced row holds for larger plantings. Set strawberry plants out as early in the spring as your garden can be fitted, the specialists advise. Place the plants about 24 inches apart in rows 42 inches apart.

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In the States of Ala., Ariz., Calif., Fla., Ga., La., Miss., Mo., N.C., Okla., S. C., Tenn., Texas

New Yellow Bermuda Onion Outyields Old Ones 35 Percent

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A new Yellow Bermuda onion developed by the U. S. Department of Agriculture and the Texas and California agricultural experiment stations was released to seed growers in 1945. A good commercial supply of seed is expected by next fall (1947).

This new onion, just recently named Excel, produces 35 percent more onions of high quality than those yellow Bermudas that have been common in the past. Also, the crop matures 10 to 14 days earlier. Last summer it was a regional selection in the All-America Vegetable Trials.

The new onion is adapted especially to Southern Texas and Southern California, and the South in general. It is not expected to be a good transplant crop for the North.

Excel bulbs have a great resistance to splitting and the formation of doubles, a characteristic that some growers consider the most valuable. A very small percentage of the Excel bulbs in the commercial crop send up flower stalks, another point that pleases growers. Yields in various places where the new variety has been tried so far in Texas and California have commonly been around 500 50-pound bags to the acre.

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United States Department of Agriculture

Great Demand for Farm Electrification

The demands of unserved __________ (State) farmers for electric service highlighted the Rural Electrification Administration program in the State during the last year.

These demands were reflected in the backlog of applications for REA loan funds in process of preparation in the field and on file at REA headquarters in Washington. On February 6, 1947 the backlog stood at $__________ (1) although REA had approved $__________ in loans in the State during the preceeding twelve months.

Another development of the year in the REA program in __________ (State) was the high consumption of electricity in rural areas served by REA-financed power systems. In the last five years, the number of kilowatt-hours of electricity distributed to the State's REA-served consumers had increased ______ times, from __________ (4) in 1941 to __________ (3) in 1946. In the same period, the number of REA-served consumers had increased ______ times, from ________ (6) to ________ (5).

REA power utilization experts gave several reasons for the increased consumption on REA-financed lines in this State. These included new uses for electricity in food production and processing on the farm and in the rural home; better use of electricity to improve rural living standards, and extension of electric service to unserved rural people.

As of December 31, 1946, REA had approved a total of $__________ (7) in loans to borrowers in __________ (State). Of this amount, $__________ (8) has been advanced to the borrowers to pay for rural electric facilities already completed or under construction. The remainder will be used for the construction of additional facilities that will serve an estimated ________ (9) new consumers. New lines are being built as rapidly as materials can be obtained.

The REA borrowers in the State have paid $__________ (10) in principal and interest on their government loans, including $__________ (11) paid on principal in advance of the due dates. Only $__________ (12) is more than 30 days overdue on these REA loans.

REA's latest estimates showed that 3,106,775 farms, or 52.9 percent of all farms in the United States, were connected to rural power lines on July 1, 1946. But 2,769,955 farms still awaited the day when they too could have electric service. New Jersey was nearest to complete farm electrification with only 1.5 percent of its farms still lacking service. California was next with 3.8 percent of its farms still unelectrified. In __________ (State), ________ (14) farms, or ________ (13) percent, were still unserved.

USDA 613   17(3-47)

DATA ON FARM DEMAND FOR REA ELECTRICITY

State	Backlog Applications For REA Loans In Process of Preparation In Field and In Washington 2-6-47	REA Loan Allocations 2-7-46 to 2-6-47	KWH Distributed 1946	KWH Distributed 1941	No. REA-Served 12-31-46	Consumers 12-31-41	Total REA Loan Allocations 12-31-46	Total Advanced as Loans 12-31-46	Estimated No. Unserved Consumers to be Reached Under Total REA Loan Allocations 12-31-46	Principal And Interest Paid 12-31-46	Advance Payments Principal 12-31-46	More Than 30 Days Overdue 12-31-46	Unelectrified Farms 7-1-46 Percent	Unelectrified Farms 7-1-46 Number
	(- - - - - - -	- In Thousands -	- - - - - -	- -)			(- In Thousands	-)		(- In Thousands	-)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Ala.	$ 5,903	$ 12,417	$ 67,386	$21,200	$53,232	$26,331	$31,370	$13,258	$33,405	$ 2,713	$ 551	$ 4,956	65.9	150,036
Ariz.	1,742	1,958	11,330	1,652	3,457	1,129	2,729	1,592	2,457	410	83	0	28.5	3,742
Ark.	6,726	7,864	29,126	8,744	44,445	18,536	25,760	15,514	27,310	2,610	342	7,287	69.2	137,976
Cal.	1,420	275	15,779	5,537	4,912	3,819	2,929	2,094	602	544	0	146,850	3.8	5,262
Colo.	6,275	4,588	48,207	16,956	25,512	10,280	17,262	11,352	9,087	1,828	214	68,073	37.6	17,906
Conn.	0	0	0	0	0	0	0	0	0	0	0	0	10.1	2,241
Del.	128	851	4,899	1,816	3,494	2,686	2,127	1,164	2,932	393	105	0	27.9	2,596
Fla.	10,090	4,783	19,787	4,249	18,890	7,070	13,451	7,425	11,133	908	56	10,079	52.7	32,497
Ga.	18,715	12,940	96,679	32,937	96,834	58,163	41,424	21,955	29,649	6,115	1,126	8,012	58.3	132,905
Idaho	2,883	1,658	11,980	3,578	8,320	5,881	6,320	4,320	3,782	1,112	74	2,275	11.6	4,798
Ill.	12,599	10,499	91,700	30,755	69,980	44,227	37,921	26,786	22,303	6,455	1,580	0	35.5	72,528
Ind.	3,065	4,681	109,462	39,752	89,995	62,800	33,186	24,432	15,435	8,952	2,699	0	16.1	28,294
Ia.	19,741	15,709	118,531	30,339	84,947	48,249	54,686	37,918	17,680	7,828	1,775	20,865	25.8	54,009
Kan.	15,930	9,914	25,616	7,875	24,185	13,829	27,512	14,070	23,327	1,996	171	32,260	63.9	90,418

2-Data on Farm Demand for REA Electricity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Ky.	$11,230	$14,243	$63,881	$1[illegible],657	$65,618	$31,412	$32,967	$17,336	$33,645	$ 3,808	$ 633	$ 0	67.9	162,157
La.	3,117	3,143	23,461	5,751	34,749	11,164	18,105	14,310	9,382	2,053	445	0	63.2	82,152
Me.	225	168	1,295	303	2,015	708	1,042	756	621	77	2	29,746	43.1	18,184
Md.	2,427	787	17,163	1,762	10,259	2,830	5,068	3,116	2,750	473	125	0	28.6	11,815
Mass.	0	0	0	0	0	0	0	0	0	0	0	0	10.0	3,709
Mich.	3,280	3,020	47,964	17,692	39,630	28,184	19,046	15,098	3,886	3,817	244	70,567	5.7	9,930
Minn.	16,232	17,859	128,228	40,227	85,436	48,581	59,140	36,324	33,030	9,234	1,569	53,836	44.3	83,698
Miss.	8,464	15,962	76,537	29,449	74,784	42,233	34,138	17,325	42,042	3,520	514	6,939	75.2	198,228
Mo.	33,289	13,495	137,094	24,625	94,612	33,221	51,366	35,377	36,628	4,667	643	131	61.5	149,626
Mont.	10,437	6,431	22,760	5,981	12,829	6,465	14,284	6,291	9,354	990	193	2,472	62.4	23,547
Neb.	15,345	13,455	48,317	12,584	30,964	15,554	32,606	16,533	26,128	3,628	146	0	62.7	70,034
Nev.	430	0	3,539	1,185	614	417	296	245	0	157	57	0	42.4	1,454
N. H.	1,123	95	2,360	541	3,658	2,281	1,889	1,773	548	79	0	133,536	15.2	3,036
N. J.	20	100	2,669	1,068	1,852	1,186	668	591	152	172	2	0	1.5	386
N. M.	3,185	2,435	20,369	3,046	6,325	1,997	6,501	3,761	5,539	379	13	0	65.4	19,449
N. Y.	920	195	4,333	0	9,881	5,720	4,643	3,852	3,464	2,105	0	3,310	15.8	23,606
N. C.	5,401	8,445	45,171	13,289	60,330	33,815	35,761	21,417	34,538	7,009	581	22,649	56.2	161,441
N. D.	16,151	11,748	12,671	3,147	8,383	4,161	19,320	8,812	14,727	935	89	1,067	89.6	62,270

3-Data on Farm Demand for REA Electricity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Ohio	$ 2,385	$ 2,364	$102,778	$ 31,115	$ 78,706	$ 47,801	$30,449	$24,086	$12,175	$ 6,491	$1,231	$ 0	9.7	21,410
Okla.	12,427	10,537	41,043	12,267	45,589	20,401	30,520	20,174	22,841	2,756	353	0	71.0	119,036
Ore.	3,670	1,764	24,828	4,081	12,474	4,718	9,769	6,656	3,863	740	135	38,482	11.1	7,025
Pa.	7.650	1,218	43,379	15,286	40,347	25,287	14,970	12,872	1,981	3,019	455	0	25.2	43,239
R. I.	0	0	0	0	0	0	0	0	0	0	0	0	12.6	453
S. C.	10,345	4,979	35,418	11,815	44,964	26,067	18,156	11,972	15,059	2,182	374	22,260	55.3	81,370
S. D.	10,502	10,734	7,349	1,673	5,745	2,980	17,264	5,716	23,646	535	93	206	86.5	59,405
Tenn.	7,303	15,454	292,957	110,905	112,570	55,636	32,791	18,399	31,776	5,239	1,057	0	69.7	164,366
Tex.	18,708	27,705	122,509	35,868	140,541	74,754	80,622	53,625	43,782	8,603	1,217	13,430	56.9	222,414
Utah	1,130	514	2,495	837	2,769	1,762	2,067	1,379	647	268	29	0	18.1	4,772
Vt.	380	690	4,445	712	3,769	1,489	2,545	1,864	677	219	77	34,452	24.9	6,590
Va.	10,370	6,923	40,755	15,488	38,663	21,841	21,604	14,836	12,361	2,766	300	0	58.1	100,699
Wash.	6,280	3,196	48,264	7,523	16,822	9,669	12,961	8,141	4,078	1,718	208	19,332	13.0	10,837
W. Va.	50	50	1,494	549	2,124	1,188	852	754	225	57	0	98,919	62.9	61,486
Wis.	13,033	22,111	69,071	23,810	51,607	29,289	41,739	26,009	19,736	5,313	375	32,582	23.3	41,397
Wyo.	1,517	3,665	9,302	3,810	6,976	3,821	7,361	3,523	4,352	759	66	0	47.9	5,976

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WEEKLY NEWS SERVICE

EXCLUSIVE TO
EXTENSION EDITORS

United States Department of Agriculture

In all States

Livestock Population Declines

- - -

The farm livestock population was lower on January 1 than on the same day last year. Beef cattle were off slightly, milk cows and hogs moderately and sheep, horses and mules sharply. Chickens dropped 10 percent and turkeys 22 percent.

The outlook indicates that the number of hogs will go up this year. The number of all cattle will continue to drop but the number of milk cows will stay about the same. Sheep will continue to decline but at a slower rate. The number of chickens and turkeys will be about the same next January 1 as last New Years.

Meat-animal prices probably will continue high the rest of the first half of 1947 although prices for the different kinds and grades will show considerable variation. Chicken prices may increase seasonally in the next few months. By next fall, however, a downturn probably will occur in prices of both livestock and poultry.

Note-- Figures selected from the attached table showing the rank of the States in livestock numbers may be useful in writing localized releases.

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EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

In Ga., Fla., Ala., Miss., La., and Texas

Mulch Tung Trees With Cover Crops

- - -

Fast-growing, high-yielding tung trees in experimental plots and private orchards demonstrate the value of mulching, U. S. Department of Agriculture scientists report.

The cheapest and most readily available mulch comes from leguminous cover crops such as vetch, winter peas, lupine, or crotalaria, grown right in the orchard between the tree rows.

For good stands, the scientists recommend fertilizing the cover crop with 500 pounds of basic slag or with 250 pounds of 20 percent superphosphate per acre, plus, in each case, 100 pounds of muriate of potash per acre.

For full value of the green matter, the cover crop should be cut with a mowing machine when the seed pods are just beginning to form as the plants have made all of their growth at that time and the material is not so woody as it would be if cut later. The mulch material can be windrowed towards the trees with a side-delivery rake and later tossed around the trees with a pitchfork. The mulch should cover an area extending from the trunk somewhat beyond the spread of the branches. It should be about a foot deep when placed and 6 inches deep after settling.

Mulching conserves moisture and enables young trees to withstand spring and fall droughts which frequently occur in the tung-growing area. As the mulch decomposes, it releases elements of plant food to the young trees. By keeping down soil temperature in midsummer, mulch promotes the action of beneficial soil bacteria. And it prevents the growth of weeds and grasses that would otherwise compete with the trees for plant nutrients. Mulching offers still another advantage in that it saves hand hoeing ordinarily needed in tung orchard cultivation.

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United States Department of Agriculture

In: Alabama, Georgia, North Carolina, South Carolina, Texas, Tennessee, Arkansas, Mississippi, Louisiana

NITROGEN IMPROVES QUALITY AS WELL AS YIELD OF CORN

- - -

Southern farmers who use heavy applications of nitrogen to fertilize corn crops will get returns in quality even when dry weather cuts the yields.

Results of experiments conducted jointly by soil scientists of the U. S. Department of Agriculture and the North Carolina Experiment Station show that nitrogen fertilizer increased the protein content of the grain in all cases.

The proportion of increased protein content was greater when the yields were relatively low. For example, in corn grown under favorable conditions where fertilizer boosted the yield by 88 bushels an acre, the protein content was increased 2 percent. But when the yield was limited by dry weather to an increase of only 51 bushels an acre, the protein in the grain was upped by 7 to 11 percent.

Although high quality corn has no added market value at present, it can mean substantial savings in protein concentrates needed by poultry, dairy cattle, and livestock.

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United States Department of Agriculture

In Ohio, Ind., Mich., Wis., Minn., Iowa, N. Dak., S. Dak., Nebr., Kans., Okla., Texas, Mont., Idaho, Wyo., Colo., N. Mex., Ariz., Utah, Wash., Oreg., and Calif.

IT'S LITTLE THINGS THAT MAKE A GOOD ALFALFA SEED CROP

- - -

The success or failure of a variety or strain of a plant as a crop may hang upon a slender thread. For example, Dr. H. M. Tysdal of the U.S. Department of Agriculture's Plant Industry Station, discussing the factor of seed production in alfalfa says we have to keep in mind such broad-scale influences as heredity of the plant, physiology of the plant, beneficial insects, harmful insects, harvesting and processing factors, and climate.

He went on to emphasize the great weight of heredity in producing big yields of seed, especially the superiority of some hybrids over standard varieties. Hybrids and polycrosses produced cooperatively in Utah yielded 725 pounds of seed per acre compared with 448 pounds from the Grimm variety, long a standard.

Then he mentioned the subtle influence of insect attraction of the flowers, a complex factor in itself. One scientist, Marion Pedersen of the Department, working cooperatively with the Utah Experiment Station, he says, has found that bees are more inclined to visit those flowers whose pollen stalks have only a gentle kick when tripped, rather than the kinds that let go with a bang. Tysdal said he could understand the bee's choice, as the load of pollen hits him squarely in the face. In this matter of what might be called floral diplomacy, he says there is room for investigation and improvement as well as in the amount, quality and availability of nectar and pollen, which are the bee's reward for his work. This phase is very important because alfalfa flowers must be "tripped" by insects to produce seed. Other fine points he mentioned are breeding for resistance to harmful insects and diseases, and the mechanism of pollination.

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United States Department of Agriculture

In N.J., Pa., Del., Md., Va., N.C., S.C., Ga., Tenn., Ky., W.Va., N.Y., Ohio, Ind., Ill., Mich., Mo., Nebr., Kans., Okla., Ark., Texas, Idaho, Wash., and Oreg.

VIGO, NEW WINTER WHEAT, PROVES DISEASE RESISTANT

- - -

Vigo, a new soft red winter wheat, is the latest gain on the bread front, helping to hold off the attacks of the constantly shifting rust enemy and providing a good yield of desirable grain. Developed by scientists of Purdue University and the U.S. Department of Agriculture, this variety was released to certified seed growers last year and there should be a considerable supply of seed for farmers of the region for sowing next fall (1947).

The good points of Vigo are such that the grain specialists expect it soon to become popular with growers: It has moderate resistance to leaf rust, resistance to loose smut, is a high yielder, the kernels are the meaty kind that give the variety a high test weight, and the leaves are dark green in both the seedling and heading stages. It has shown winter hardiness beyond that of most good quality soft red winter wheats, about as good in this respect as Fairfield which has had the best survival record in the whole area.

When rust attack is severe, Vigo yields better than the standard old varieties and when there is no rust the standard ones are no better than Vigo. So the farmer will not have to pay in rust-free years for what he gains with Vigo in years of rust. It promises to suit millers and bakers as tests show it is as good in meeting their standards as the best previous varieties and perhaps better.

Vigo was bred by Ralph M. Caldwell of Purdue and L. E. Compton of the U.S. Department of Agriculture by selecting from plants produced by crossing a strain of the variety Trumbull, one of the most popular in the region, and a selection from the leaf rust-resistant Fultz variety. They named their promising new wheat, which they have worked on for 15 years, in honor of Vigo County, Indiana, and the famed frontiersman, trader and soldier, Francisco Vigo, who contributed much to the military triumphs of the George Rogers Clark expedition in this territory, now the heart of the soft red wheat area.

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United States Department of Agriculture

Missouri, Iowa, Illinois, Indiana, Ohio, Nebraska

Soybean Residues Enrich the Land and Check Erosion

- - -

By removing only the soybean seed and leaving all the leaves, stems, roots, and pods on the land, more than half the nitrogen contained in the soybean plant is returned, and erosion is also markedly lessened, according to R. E. Uhland, research specialist, Soil Conservation Service, U. S. Department of Agriculture.

In a study of Virginia soybeans at the Missouri Station, it was found that cutting for hay at the time of maximum harvest would have removed 115.7 pounds of nitrogen per acre. If the beans had been harvested with a combine, 40 to 45 pounds of this nitrogen would have been returned to the soil. Beans drilled solid yielded 134 pounds of nitrogen, as against 101 pounds for beans planted in rows and cultivated. It was calculated that more than half the nitrogen came from the air. When the beans are grown as a catch crop the yield of nitrogen is reduced more than half.

In a series of tests at the Ohio station, it was found that if all the hay had been taken off the land, it would have represented a removal of 85.7 pounds of calcium, 46 pounds of magnesium, 79.8 pounds of potassium, 22.9 pounds of phosphorus, and 173.1 pounds of nitrogen per acre. The 6-year average showed that the amount of phosphorus removed by the crop harvested either the middle of September or the first of October was equivalent to that contained in 150 pounds of 20-percent superphosphate. The amount of potassium removed was equivalent to 78 to 82 pounds of muriate of potash.

Soil loss and runoff data indicated that returning the leaves, stems, and pods of soybeans to the surface soil results in large savings of both soil and moisture. The soil loss from land where soybean hay was removed and the land left bare was 129 times as great as where the land was mulched with 2 tons of straw.

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WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

In Miss., Ala., Tenn., Ark., Mo., Tex.

The Best Corn Crop Doesn't Stop Growing

- - -

Recent examples of increased yields of corn through better fertilization are most encouraging, say specialists of the U. S. Department of Agriculture, for they give promise of greater returns for the investment in fertilizer and labor.

These corn records keep piling up year after year as more work is done on new hybrids, on rates of planting of adapted hybrids, and on fertilization. One of the latest of these comes from Mississippi where tests have again emphasized that, once a good variety is available for a locality, a combination of high rates of fertilization, continuously available plant food, and thick stands is needed for the farmer to make the most of his opportunity.

Howard V. Jordan, soil technologist of the Bureau of Plant Industry, Soils, and Agricultural Engineering, reporting on these Mississippi tests, said that during a 28-day period from June 26 to July 24 last year the weight of plants on land receiving the best fertilizer treatment (120 pounds of nitrogen an acre) increased by 157 pounds of dry matter per acre every day where the close-planted ground had 12,000 plants. With poor rates of fertilization the production of dry matter ranged down until on an unfertilized acre it was only 75 pounds a day. The growth at this time all went into leaves and stalks--the vegetative part. The importance of this, says Jordan, lies in the fact that by late July, after leaves and stems practically quit growing and when grain is filling at a rapid rate, nutrients move from the vegetative parts into the ears. It is a high-pressure period when food goes both from the soil direct and from the plant into the grain. This is the time when the plants that have gained fast in the early part of the season put the gains where they count most for the farmer.

(more)

In the 22-day period between roasting-ear and early-dent stages grain was produced on the best fertilized plots at an average rate of 101 pounds of dry matter an acre a day--equivalent of nearly 2 bushels of corn a day. From there on down through the less well fertilized plots the weight of grain produced each day was less and less. The field that got no added nitrogen built up corn at the rate of only about one bushel a day.

Jordan says the advantages of fertilizing corn for early growth accumulate as the season advances like money at compound interest. In the experiment not only was nitrogen applied at planting time but the corn got an additional boost from side dressing applied when it was knee high. In this experiment the best treatment--a total of 120 pounds of nitrogen used where there were 12,000 plants to the acre--brought an increase in yield over the no-fertilizer field that amounted to one bushel of corn for each two pounds of nitrogen.

The corn that got nitrogen at planting and again when knee high, according to the research report, "never stopped growing."

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EXCLUSIVE TO EXTENSION EDITORS
United States Department of Agriculture

In Alabama, Mississippi, Georgia, Arkansas and Louisiana

Lupinus Minus Lupinine Scientists' Gift to South

- - -

Lupines (Lupinus), well adapted to the production of big crops of much needed protein feed in the South had not taken hold extensively as a feed crop in the past because most kinds have carried too much of lupinine, a poisonous alkaloid. But now, as a result of a breeding program started in 1935 by the U.S. Department of Agriculture, so-called sweet strains, those safely low in lupinine, have been developed in both the blue and yellow kinds. Seed of the new sweet blue is already in commercial production -- about 100,000 pounds harvested in 1946 -- and there is reason to expect sweet strains of the yellow to be regularly on the market after a year or so.

The old strains with poisonous seeds have been grown by many southern farmers for soil improvement and the sweet ones require the same culture and handling. These sweet lupines, both plant and seed, are palatable to livestock. How important they can be as a source of concentrated feed is indicated by the Department agronomists who report that yields of 1,000 pounds or more an acre of seed can be expected in June from fall planting. Also the growing crop can be pastured.

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WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

In Arkansas, Louisiana, Texas, and California

Home Grown Rice Seed Need Not Be Replaced

- - -

Rice growers who buy new seed to replace home grown seed often go to needless expense. A joint 5-year study recently reported by agronomists of the U.S. Department of Agriculture and the Rice Experiment Stations of Arkansas, Louisiana, Texas, and California shows that:

The purity and quality of home grown seed can be maintained for use year after year.

Low crop yields which the farmer may attribute to seed deterioration are more likely due to weather conditions or other agronomic factors.

Local seed of good germination and free of mixtures and weed seeds is usually as productive as seed the farmer may have shipped in from other states.

In test plots in which Calora and Early Prolific varieties were grown at all 4 stations and the Fortuna variety at the 3 Southern stations, the yields of each variety ranged widely from year to year. For example, Calora yields ranged in Arkansas from around 39 to 55 bushels, in Louisiana from 31 to 58 bushels, in Texas from 33 to 44 bushels, and in California from 90 to 94 bushels.

The findings indicate that this range in yield is the result of variations in environment and soil type rather than the source of seed -- whether it was grown at the same station or brought in from other stations. Location and variety had a marked effect upon the yield of head rice, but the source of seed had no noticeable effect on the milling quality nor on the total milled rice yield. At each station, however, results showed wide variations in milling quality between the different varieties and between crops of the same variety grown in different years.

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WEEKLY NEWS SERVICE

EXCLUSIVE TO
EXTENSION EDITORS
In All States

United States Department of Agriculture

Many Farms Await Electricity

- - - - -

____(State)________ still has ______________ farms without electricity, according to ____(Name)__________, Director of the State Agricultural Extension Service. This represents, he said, ______ percent of all the farms in the State.

This number of unserved farms remains in spite of great progress in the extension of rural power lines since 1936, he said.

The figures are based on tabulations prepared by the Edison Electric Institute and quoted by Rural Electrification Administrator Claude R. Wickard in a recent letter to Congressman Jamie L. Whitten of Mississippi.

The estimate does not include rural churches and schools, country stores, rural homes not on farms, and other non-farm establishments in rural areas which still lack power. It is estimated, however, that the number of such non-farm buildings in this State still without service may equal the number of unelectrified farms.

____(State)______'s _____(Number)____ farms without electricity are part of a National total of about 2½ million, according to the figures sent to Director ____________ by Administrator Wickard. Nine States each have more than 120,000 farms still awaiting the highlines; in each of 18 States there are more than 60,000 farms without electricity. Almost 60 percent of the unelectrified farms lie east of the Mississippi River; the States of New York, Pennsylvania, Ohio, and West Virginia, as a group, have more unelectrified farms than all of the 11 westernmost States together.

"The recent progress in electrifying farms in ___(State)______ is gratifying to all of us who live here," Director ____________ said, "but so long as any such substantial number of farms do not have power we cannot regard the job as finished."

(more)

Copy

UNITED STATES DEPARTMENT OF AGRICULTURE
Rural Electrification Administration
Washington 25, D. C.

May 22, 1947

Hon. Jamie L. Whitten
House of Representatives

Dear Mr. Whitten:

This is in reply to your inquiry relative to the job yet to be done in rural electrification.

The first of this year there were 2½ million farm families still living without electric light and power. This is the estimate of the Edison Electric Institute, the organization of the public utility industry. Our own current official estimate of the number of unelectrified farms is on the basis of June 30, 1946, since we compile such figures at the close of each fiscal year. Allowing for progress during the June 30 to December 31 period, our tabulations and those of the Institute are substantially the same.

We estimate that in addition to the above unelectrified farms, there are more than 2 million rural establishments such as schools, crossroad business places, and rural dwellings not on farms that do not have highline power.

Unelectrified farms are to be found everywhere across the face of our land. This is the case despite the remarkable work that has been done in the last dozen years of the National rural electrification program whereby the percentage of electrified farms has been raised from 11 percent to approximately 57 percent.

Few counties, even in the most prosperous areas, have completed their rural electrification. While a big and difficult part of the job remaining is in the less densely settled areas of the West, it is a fact that almost 60 percent of the unelectrified farms are east of the Mississippi River. The States of New York, Pennsylvania, Ohio, and West Virginia, as a group, have more unelectrified farms than all of the 11 westernmost States together.

You will note from the attached tabulation that 9 States each have more than 120,000 farms still awaiting the highlines. In each of 18 States there are more than 60,000 farms without electricity.

These figures give an indication of the magnitude of what has yet to be done, but it takes more than statistics to indicate fully the job ahead in rural electrification. The National rural electrification program was inaugurated in 1935 in the belief that electricity no longer could be regarded as a luxury and that it provided both a guiding light and a dynamic force to lead our Nation forward. The success of the program during these 12 years indicates the soundness of this belief. Electricity today is as necessary to the welfare of rural areas as it has long been to those urban. The job ahead consists of making this modern necessity available to every rural community without delay.

I am sure that you have seen repeatedly among your constituents how the highlines have laid the basis for new prosperity, health, and happiness. Every day we hear of farmers who have increased their incomes and decreased their costs by using electricity. Every day we learn of new industries springing up in electrified communities. Better opportunities for adequate school lighting, for rural health clinics, and for improved farm sanitation through pressure water systems have accompanied the highlines. The farmers who are directing their own electric cooperatives through the country speak vividly of what electricity means to them and their wives.

The REA today has a backlog of applications on hand and in process in the field for rural electrification loans totaling $244,584,000. Farmers in every State and every community are insisting that they be given the opportunity to provide themselves with electricity. It is inconceivable, in this Twentieth Century, that so many American citizens should still be living in the age of the kerosene lamp. Even though good progress has been made during these dozen years, the fact that approximately 43 percent of the Nation's farms still are unelectrified represents a powerful challenge to future action. Furthermore, it must be borne in mind that reaching the remaining 43 percent is the hardest part of the job. By and large, the people still unserved are in the thinner, less densely settled areas. It will take more effort, more material and more dollars per consumer to finish the job than has been required so far. The tough part of the job is still before us.

Thank you for your interest in the progress of this program. Please let us know if we can be of any further assistance.

Sincerely,

/s/ Claude R. Wickard

Administrator

Enclosure

FARMS WITHOUT CENTRAL STATION ELECTRIC SERVICE

	June 30, 1946 Number (1)	June 30, 1946 Percent (2) (REA Data)	December 31, 1946 Number (3)	December 31, 1946 Percent (2) (EEI Data)
UNITED STATES	2,677,036	45.7	2,523,469	43.1
Alabama	136,805	61.2	129,069	57.8
Arizona	3,548	27.0	2,242	17.1
Arkansas	135,667	68.2	130,469	65.6
California	15,671	11.3	18,417	13.3
Colorado	19,485	40.9	17,918	37.6
Connecticut	1,108	5.0	1,141	5.1
Delaware	2,939	31.6	2,896	31.2
Florida	30,367	49.7	30,759	50.3
Georgia	130,170	57.6	122,797	54.4
Idaho	6,765	16.3	6;098	14.7
Illinois	69,349	34.0	64,439	31.6
Indiana	38,601	21.9	34,770	19.8
Iowa	53,428	25.6	49,034	23.5
Kansas	89,919	63.7	87,592	62.0
Kentucky	150,710	63.2	148,001	62.1
Louisiana	80,056	61.9	74,595	57.7
Maine	13,112	31.1	12,184	28.3
Maryland	14,325	34.7	11,515	27.9
Massachusetts	2,936	7.9	2,507	6.8
Michigan	21,543	12.3	17,768	10.1
Minnesota	82,668	43.8	80,257	42.5
Mississippi	199,093	75.5	188,428	71.5
Missouri	144,992	59.7	135,534	55.8
Montana	24,250	64.2	23,647	62.6
Nebraska	71,067	63.6	68,256	61.1

FARMS WITHOUT CENTRAL STATION ELECTRIC SERVICE

	June 30, 1946		December 31, 1946	
	Number (1)	Percent (2)	Number (3)	Percent (2)
	(REA Data)		(EEI Data)	
Nevada	1,716	50.0	1,729	50.4
New Hampshire	2,732	14.5	2,286	12.2
New Jersey	1,570	6.0	1,526	5.8
New Mexico	19,445	65.5	19,295	65.0
New York	15,253	10.2	12,290	8.2
North Carolina	156,034	54.3	146,112	50.8
North Dakota	60,919	87.6	60,720	87.3
Ohio	38,151	17.3	31,175	14.1
Oklahoma	100,242	60.8	95,790	58.1
Oregon	11,268	17.9	6,525	10.0
Pennsylvania	35,373	20.6	32,061	18.7
Rhode Island	355	9.9	303	8.4
South Carolina	84,518	57.2	79,845	54.0
South Dakota	58,562	85.2	58,605	85.3
Tennessee	151,050	64.4	146,431	62.5
Texas	188,067	48.9	174,577	45.3
Utah	5,560	21.1	5,922	22.5
Vermont	4,633	17.5	2,890	10.9
Virginia	95,265	55.1	88,751	51.3
Washington	7,499	9.4	3,887	4.9
West Virginia	53,463	54.8	49,600	50.8
Wisconsin	39,994	22.5	36,045	20.3
Wyoming	6,793	52.0	6,776	51.8

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(1) REA estimate.
(2) Percent of all farms in the Nation and in the various States, based on the U. S. 1945 Census of Agriculture. (3) From Edison Electric Institute data.

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WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

In New York, Massachusetts, Wisconsin, Minnesota, Iowa, Indiana, Ohio, Illinois, Michigan, Pennsylvania

Seed is the Bottleneck to Better Pastures

- - -

The seed appears to be the weakest link in the chain of grassland farming. That is one important factor, according to Dr. O. S. Aamodt of the U. S. Department of Agriculture, that stands out as a result of the stimulated research of recent years on grass mixtures and combinations of crops to produce the "greatest amount of pasturage at a uniform rate throughout the longest possible grazing season."

Back of this seed difficulty, says Aamodt, who is head of the work on forage crops and diseases at the Plant Industry Station, Beltsville, Md., is the fact that less than one percent of the grass and legume seeds sold is of recommended superior varieties. One reason for this skimpy use of improved strains is that their seed cannot be distinguished from common kinds merely by appearance. So buying certified seed is the only recourse.

To add to this difficulty, he says, is the fact that seed is frequently grown in one region for use in another, and pasture seed mixtures are often made up of seeds brought together from many places. Furthermore, seed of an improved variety may be handled by several segments of the seed trade before it gets to the farmer. For these reasons he recommends the development of safe procedures for handling certified seed in large volume. Dependability of supply of improved seeds, he says, will stimulate farmers to take advantage of the gains plant breeders have made.

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United States Department of Agriculture

In Calif., Ore., Wash., Ga., No. Carolina, So. Carolina, Fla., Del., Md., Va.,
W. Va., Minn., Iowa, Mo., No. Dak., So. Dak., Nebr., Kans.

Horse Sleeping Sickness in 1946 at Low Point in Twelve Years

- - -

Infectious equine encephalomyelitis (sleeping sickness) was reported from 37 States during the year 1946, but only 2,805 cases were recorded. This is slightly lower than the 3,212 cases in 1945, and is the lowest number for any preceding 12 years covered by the nation-wide surveys on the disease made by the Bureau of Animal Industry, U. S. Department of Agriculture.

The pattern of distribution of the disease was about the same as in former years, except for lower incidence. The average mortality (34%) was higher than in other years except for 1945. There was a noticeable decrease in the amount of cases reported for the South Atlantic and Pacific States for 1946 compared with 1945, but a marked increase in the cases reported for the West North Central States. The peak months were June, July, August, September and October, September being the highest in reported cases.

The Division of Virus-Serum Control estimates that about 400,000 animals were vaccinated (two doses) in 1946. Twenty-six animals were reported to have contracted the disease despite vaccination.

A specimen of a human brain from a case of suspected equine encephalomyelitis was received for diagnosis by the Bureau. Virus was not recovered, but histological examination revealed pathological alterations consistent with those seen in known cases of eastern equine encephalomyelitis in man.

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WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

In Kansas, Nebraska, New Mexico, Oklahoma and Texas

Threshed Grain Sorghum Better Than Sorghum Heads for Fattening Steers:

Cattle feeders in sorghum-producing areas of the Southern Great Plains experience considerable difficulty with urinary calculi in steers but this condition can be controlled to a large extent by feeding threshed grain sorghum rather than sorghum heads and by supplementing the ration with bone meal, say feeding specialists of the U.S. Department of Agriculture and the Texas A. and M. College Agricultural Experiment Station.

Their findings, although not conclusive, are especially applicable to the regions where grain sorghums are plentiful and are used extensively for steer fattening. The feeding of corn as a carbohydrate concentrate also controlled formation of calculi.

These results were indicated in cooperative steer-feeding experiments conducted for three years at the Big Spring Field Station, Big Spring, Texas, and reported by W.H. Black of the Bureau of Animal Industry, and J.M. Jones of the Texas Station. The Bureau of Plant Industry, Soils, and Agricultural Engineering of the Department also cooperated in the studies.

Each experiment was begun early in November and extended 182 days with six groups of eight head each of choice feeder steers. The concentrates consisted of some form of grain sorghum or corn, together with cottonseed meal. These steers were fed all the grain they would eat after getting on full feed. The roughage was sumac sorgo silage.

Although experimental work is being continued to obtain further information concerning the formation of calculi, the specialists believe that these results should serve as an aid in the control of this condition among feed-lot steers in areas where grain sorghum is plentiful and corn is scarce.

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United States Department of Agriculture

In Arkansas, Alabama, Mississippi, Louisiana, Texas, Oklahoma

Soil Mixture Beats the Band Method for Some Forms of Phosphate:

Evidence that ammoniated superphosphate and basic slag may give better crop returns if they are mixed with soil rather than localized in the band placement recommended for ordinary superphosphate is reported by the U.S. Department of Agriculture.

The evidence is based on results of a joint study by the Bureau of Plant Industry, Soils, and Agricultural Engineering, and the Alabama and Arkansas Experiment Stations.

In controlled greenhouse experiments, the scientists tested crop response to the calcium phosphates that occur in ordinary superphosphate, ammoniated superphosphates, and basic slag when the fertilizer is applied in various ways.

Results with both wheat and Sudan grass grown on three different soils show that the calcium phosphates in ordinary superphosphate give good returns either when placed in a band a few inches to the side of the seed or when mixed with small amounts of the soil and placed in a layer extending a few inches under the seed.

But band placement of the less soluble phosphates in ammoniated superphosphate and in basic slag gave greatly reduced crop yields. The scientists found, however, that mixing these forms of phosphate with as little as 2 1/2 percent of soil greatly improved the crop response. Mixing them with 10 percent of soil gave further increased yields. And mixtures with 40 percent and 100 percent of soil gave better returns than the band placement although not so good yields as the 10 percent mixture.

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EXCLUSIVE TO
EXTENSION EDITORS

United States Department of Agriculture

In all Southern States plus Iowa, Illinois and Indiana

Hybrid Corn Brings New Wealth to the South

- - -

The South will grow more hybrid corn this year than ever before and prospects are for big yields. Patient search for superior parent strains and new hybrids is bringing the South a better corn culture and a better balanced agriculture, according to Dr. Merle T. Jenkins of the U. S. Department of Agriculture.

The southern farmer is making the most of the corn crop by practicing rotation with legumes and pastures, using fertilizer, and in about one case out of five, planting hybrid seed corn. He plants a smaller acreage but gets better yields of corn.

Bureau of Agricultural Economics figures for 1934 to 1946 bear this out. For the ten years 1934-43, the overall average acreages of corn harvested in the South Atlantic and South Central States was 33,415,000 acres and the production was 563,799,000 bushels. The annual yield per acre was about 17 bushels. The period included two drought years.

The average for the five years 1937-41 was 33,517,000 acres with a production of 593,665,000 bushels, or 17.7 bushels per acre. The years 1945 and 1946 showed smaller acreages and larger yields. The preliminary estimate for 1946 was only 26,151,000 acres but production was 558,829,000 bushels, which means an average of over 21 bushels per acre. The United States average yield per acre was 32.7 bushels in 1945 and 37.1 bushels in 1946.

During the last five years the use of hybrid seed corn in the South increased more than 500 percent, until now a fifth of all the corn planted there is hybrid. The greatest gains have been made in Kentucky, Virginia, Arkansas, Oklahoma, Texas and Tennessee, in the order named, but there were outstanding gains in all the States of the South.

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United States Department of Agriculture

In All States

Hybrid Sweet Corn Seed Production Quadruples Since 1939

- - -

The outstanding success of hybrid field corn has turned the minds of plant breeders of the U. S. Department of Agriculture and cooperating State experiment stations to the job of improving sweet corn for fresh sale and for canning.

Agricultural experiment stations of Connecticut, Indiana, Illinois, Iowa, Maine and New Jersey, cooperating with the Department, have made notable progress in the last few years, according to the Annual Report of the Agricultural Experiment Stations for 1946.

New hybrid sweet corn has been replacing open field-pollinated varieties at a rapid rate. A total of 6,884,000 of sweet corn seed was produced in 1939, of which 2,402,000 pounds, or about 35 percent was of hybrid stocks. The total production of 1946 is estimated at 15,985,000 pounds with hybrids amounting to 10,831,000 pounds or about 68 percent of the total. A substantial and increasing volume of this production is represented by hybrids developed by the Connecticut State station. About 25 percent of the 1946 production of hybrid seed was of Connecticut hybrids.

Hybrid varieties developed by the Maine station to meet the rather exacting conditions of a short growing season supply seed for fully one-half of the hybrid acreage in that State. Early Golden 113, a market type, and Northland, an early maturing garden type, are products of station breeding.

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WEEKLY NEWS SERVICE
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United States Department of Agriculture

In Wash., Oreg., Mo., N.Y., Ohio, Va., W.Va., Pa., N.J.

Scientific Apple Storage

- - -

More apples in prime condition are becoming available at distant markets throughout the late winter and spring as growers make increasing use of handling and storage recommendations worked out by specialists of the Bureau of Plant Industry, Soils, and Agricultural Engineering and the Farm Credit Administration. These recommendations involve a new principle called "reversed air" cooling.

Research has shown that ripening can be retarded and storage life lengthened by rapid reduction of fruit temperature from 30° to 32° F. Growers following the new practices are able to make the most effective use of refrigeration.

The new designs and specifications for cold storage houses aim at faster and more uniform fruit cooling by forced circulation of refrigerated air. Large quantities of air and delivery and return ducts spaced as far apart as possible increase air velocity and hasten cooling. Reversed air cooling provides for input of cold air or removal of warmed air through the same ducts. Reversal of the air movement at regular intervals, usually of about 3 hours, makes possible use of colder air for rapid precooling without danger of freezing, as none of the fruit is exposed continuously.

Fruit is harvested at optimum maturity and sorted into blocks for early, middle, and late shipment so that preferential treatment can be given apples to be held longest. The best fruit is put in storage at once, preferably the morning after picking when the night air will have removed some of the heat. It should reach storage temperature within a week and be kept there until shipped to market under refrigeration.

Apples for late fall or midwinter sale have second place in the cooling schedule. They are brought down to storage temperature less rapidly but get additional refrigeration later as it can be spared from the late-shipment block. Bureau specialists recommend that the part of the apple crop of lowest storage quality be packed as received from the orchard and shipped early with little or no cooling in storage.

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WEEKLY NEWS SERVICE
EXCLUSIVE TO EXTENSION EDITORS
United States Department of Agriculture

In Wash., Oreg., Mo., N.Y., Ohio, Va., W.Va., Pa., N.J.

Scientific Apple Storage

- - -

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EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

In Montana, Iowa, Illinois, Oklahoma, Texas, Washington, Nebraska, North and South Dakota, Minnesota, Kansas

STORING GRAIN IN SMALL BINS

- -

Grain can be stored almost indefinitely with little deterioration in farm-type bins holding from 1,000 to 3,000 bushels, if it is kept dry, cool, clean and free of insects. Cooperative investigations by several units of the Department of Agriculture and State agricultural experiment stations in the grain regions at the time when the Government first acquired large amounts of grain resulted in the storage of several million bushels of wheat and corn for several years with a loss of only 1 percent attributable to storage damages.

One of the things they learned was the importance of having grain dry for storage. The maximum moisture content considered safe for long-time storage are: 13 percent for shelled corn; 13 percent for hard red spring wheat; 12.5 percent for soft red winter wheat; and 12 percent for hard red winter wheat.

Lower average grain temperatures can be maintained by painting steel bins white or by shading them. Grain in wooden bins is less subject to extremely high temperatures at the walls. Temperatures of 135 degrees F were noted at the walls of unpainted steel bins at Hutchinson, Kansas.

Grain dust and broken kernels contribute to a favorable environment for insect development and make fumigation harder. Grain with a large amount of foreign material may deteriorate because of the higher moisture content of such materials.

Making steel bins leak-proof is largely a manufacturing responsibility, but bins already built can often be improved by caulking. Bolts must be equipped with leak-proof lead washers applied under the head and drawn to uniform tension. Careful caulking at the wall-floor junction will minimize water hazards from snow banks melting against the bin.

(more)

Wooden bins that are not tight can be lined with heavy, waterproof paper, which must usually be replaced or repaired for each new filling of the bin. Double - wall bins have proved superior to single-walls over a period of years because they keep out moisture and retain fumigants better.

Because insects attacking stored grain are not active at temperatures above 40 degrees F and multiply rapidly only at above 70 degrees F. they are not as serious a factor in northern latitudes as they are on farms below the forty-first parallel.

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WEEKLY NEWS SERVICE
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United States Department of Agriculture

Kansas, Oklahoma, Texas, Arkansas, Missouri, Tennessee, California

NEW COMPOUNDS USEFUL IN FUMIGATING GRAIN

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Many new compounds are proving useful for fumigating granaries, mills and warehouses to kill insects, according to workers in the Bureau of Entomology and Plant Quarantine, U.S. Department of Agriculture.

Methyl bromide has outstanding value for treating bulk commodities in boxcars and warehouses, as it is absorbed in less degree than other fumigants commonly used and it penetrates well and can be successfully used at relatively low concentrations. In airtight enclosures at temperatures of 60 degrees F or above, dosages of 1 to 1 1/2 pounds per 1,000 cubic feet of space are satisfactory and for each 5 degree drop below 60 degrees the rate should be increased one half pound per 1,000 cubic feet, it is recommended.

For fumigating wheat or corn in bins, methyl bromide in combination with various chemicals or combinations of chemicals is very effective, it is pointed out. A dosage of 2 gallons per 1,000 bushels of grain, consisting of these mixtures gives consistently good results: Methyl bromide, 10 percent by volume with carbon tetrachloride or ethylene dichloride or methylene chloride or prophylene dichloride; or a 3 to 1 mixture of ethylene dichloride and carbon tetrachloride; or a 3 to 1 mixture of prophylene dichloride and carbon tetrachloride.

A mixture of three parts of ethylene dichloride and one part of carbon tetrachloride when applied to wheat in steel bins at the rate of 4 gallons to 1,000 bushels may be retained in killing concentration for as long as 4 months, the scientists stated. Applied to wheat bins in Kansas in late August or early September, it protects the grain from insects that migrate to the bins during the rest of the summer and fall.

(more)

Ethylene dibromide, suggested as a possible grain fumigant by authorities in the Department, has recently become available in commercial quantities. A mixture of one part by volume of ethylene dibromide to nine parts of carbon tetrachloride gives a satisfactory kill of insects in stored wheat at dosages of 2 gallons of the mixture per 1,000 bushels in steel bins, and at 4 gallons per 1,000 bushels in wooden farm bins. The mixture is admirably suited to treat wooden bins in which it is hard to kill the insects in the surface grain, it is declared.

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United States Department of Agriculture

To All States

Survey Shows Rural Electrification Job Remaining

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A total of (Col. 2) farms in (State-Col. 1), or (Col. 3) percent of all the farms in the State, do not have electric service, according to survey results newly announced by the Rural Electrification Administration.

The study, which analyzes the Nation's rural electrification progress up to June 30, 1947, shows that 2¼ million farms — or 39 percent of all farms in the U. S. — were not electrified at that time.

The survey ranks (State) as (Col. 4) on its State-by-State listing of unelectrified farm totals. Compared with other States, therefore, (State) (is a national leader in the field of rural electrification ... or: is keeping up with the Nation's average progress of rural electrification ... or: is faced with the challenging job of catching up with the rest of the Nation's progress in rural electrification).

The report carries with it the assurance that a minimum of $ (Col. 5) in new REA loans will be available to rural electric groups in (State) before June 30, 1948. Congress has made available $225,000,000 in loan funds for national use during this fiscal year, of which half is allotted to the various States in direct proportion to their needs. The other half is available on a flexible basis, with no single State to get more than 10 percent of it.

The rural electrification program, which has been instrumental in raising the Nation's average of electrified farms from 1 out of 10 in 1935 to 6 out of 10 today, is expected to move forward at a record rate during coming months. More rural power lines are being built today than ever before. REA borrowers alone constructed approximately 72,000 miles of distribution lines and connected nearly

(more)

300,000 rural consumers to their systems between July 1, 1946 and June 30, 1947.

Farmers are insisting that they be given an opportunity to modernize their farms by getting electricity, as shown by the flood of applications for rural electrification loans that come into REA's headquarters at a rate averaging a million dollars a day.

"In spite of the great progress in rural electrification since 1935, the task remaining will be more difficult than what has been accomplished," said Claude R. Wickard, REA Administrator. "For the most part, the areas easy to electrify have been electrified. Only a policy of full area coverage, such as has been adopted by the more than 1,000 REA-financed cooperatives and power districts, gives assurance that the 2¼ million unserved farms ultimately will get power."

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Table attached:

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United States Department of Agriculture

FEEDING TESTS POINT WAY TO SAVE MORE GRAIN

Beef-cattle producers who have late fall pasture and a plentiful supply of hay or other roughage may reduce their feed costs and further the Nation's food conservation campaign by feeding less grain and more roughage to beef cattle being fattened for market.

Specialists of the U. S. Department of Agriculture say that such a practice may pay the feeder as well or better than full feeding on corn or other grain. In fact, many stockmen have had to rely largely on pastures and harvested forage in finishing cattle and other animals during recent years when feed shortages made such changes necessary.

In a recent feeding test to determine what savings could be made in concentrated feeds, the North Carolina Agricultural Experiment Station, in cooperation with the U. S. Bureau of Animal Industry, fattened yearling steers on varying quantities of lespedeza hay and barley, with small allowances of protein supplements. Decreases in the amount of barley fed, with increases in hay, resulted in carcasses grading somewhat below Choice, yet very satisfactory.

Reducing the amount of barley to two-thirds that fed to a group of animals on full-grain ration brought the best results in terms of savings of grain for grade of carcass produced. Such a limitation, whether in dry lot or on pasture, promises to produce beef with a high degree of efficiency and with only a moderate sacrifice in grade.

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United States Department of Agriculture

In All States

GRAIN-SAVING HINT--RATION OF ROUGHAGE IS SUFFICIENT FOR IDLE HORSES

As a promising means of saving substantial quantities of feed grains, livestock specialists of the U.S. Department of Agriculture point out that idle saddle horses and idle farm work stock can both make efficient use of forage feeds. This class of feed is relatively more valuable in maintaining body temperature of horses during cold weather than in supplying energy for work.

Idle horses can be satisfactorily wintered on rations of roughage alone. However, if such feeds as oat straw, fodder, and poor-quality hay are used, an allowance of good-quality hay -- preferably a legume hay -- should be included, sufficient to supply the animals' requirements for protein, calcium, phosphorus, and vitamins. Failure in this respect may result in poor condition in the spring.

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United States Department of Agriculture

In all States

WAY TO SAVE 5 TONS OF GRAIN PER CARLOAD OF STEERS

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By limiting the amount of grain fed to good yearling steers to two-thirds of full feeding, cattle feeders can produce satisfactory beef carcasses and save more than 500 pounds of grain per animal. The U. S. Department of Agriculture points out that the saving obtained in this manner amounts to over 5 tons of grain per carload of cattle.

The experiments that showed the possibilities of such savings provided data on feed requirements of cattle of various ages and their subsequent fattening for market. Normally there are wide differences in needs for concentrate feeds in the fattening of beef cattle. As an animal develops from a calf into a two-year old it requires increasing amounts of concentrates for equal gains. This is partly because of the greater efficiency of a young animal in using feed, partly because of the greater maintenance requirements of the heavier animal, and partly because of higher proportion of the gain increment is in the form of fat.

Limitation of grain in the ration slows down somewhat the rate of fat formation and permits the building up of more lean tissue in immature animals. In this process the grade of carcass while not so high, weight for weight, as in heavy feeding is still very satisfactory to most consumers. Usually the limitation of concentrate is made up by feeding more hay and silage. In the production of cattle on two-thirds the full level of grain feed, the investigators used barley as the grain and medium-grade legume hay as the roughage, together with a protein concentrate. This diet yielded top Good or low Choice carcasses from steers weighing from 900 to 1000 pounds at time of slaughter.

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United States Department of Agriculture

In all North Central, Northeast and Middle Atlantic States

OLD PASTURES RENOVATED MAY YIELD TWO-THIRDS MORE

Many neglected permanent pastures may be made much better for next summer through a simple and not too expensive procedure, says Mason Hein, forage crops specialist of the U. S. Department of Agriculture's Plant Industry Station, Beltsville, Md. It is generally considered possible, he says, to get 60 to 75 percent more feed per acre from run-down pastures through simple renovation, and thus save grain feed.

There has been much experience in pasture renovation in various parts of the country, particularly in the more humid northern States--that is, from New England to the eastern Dakotas and down to the Carolinas, Tennessee and Missouri. This is the area, according to Hein, where most can be done with grain-saving pasture improvement work, but there are also places in the South where renovation benefits are possible.

Of course, says Hein, to make the renovation pay the pasture must look like what an insurance man would call "a good risk." "In the past we have often put such deteriorated grassland into a cultivated rotation, but now good policy calls for simple improving the grass already there."

The method recommended generally by the Federal specialists consists in liming and disking the pasture this fall, or at a favorable time in the winter, preparatory to fertilizing and sowing a suitable grass-legume mixture in the spring--that is, in the northern States. In the South where there are old and poor Bermuda grass pastures they can be improved by similar treatment, with the seeding in of annual lespedeza next spring.

In the northern humid areas good pasture mixtures for the renovation campaign are brome grass and alfalfa or a mixture of orchard grass, red clover and Ladino clover, put in sometime in March or April on pastures disked and limed this fall or during winter. (County agents will supply information on quantities of lime and fertilizer and rates of seeding.) By this method, the forage crop men say, a good pasture is likely to result, one that should be ready for grazing about next July 1, a time when old permanent pastures are likely to be least productive.

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United States Department of Agriculture

In Illinois, Iowa, Nebraska, Minnesota, Wisconsin, Michigan, Ohio, Indiana,
Kansas, Missouri

SAVE SOYBEANS FROM SPOILAGE

The big American soybean crop has unusual importance and value this year. And because many fields were immature when harvested, extra care is called for.

If stored soybeans have more than 13 or 14 percent of moisture, according to the U. S. Department of Agriculture, they are in the danger zone of spoilage and need special attention to avoid loss.

J. L. Cartter, director of the U. S. Regional Soybean Laboratory, outlines precautions that should be taken with such borderline beans and those that have so much moisture they are in even more danger of damage:

If the beans can be spread on the floor in a thin layer and shoveled over often their condition will improve.

Much chaff or dirt increases risk of molding and may make fanning desirable or even sending the boybeans to a commercial elevator equipped to care for them.

Sometimes forced ventilation with air of moderate temperature is practical, but too high heat, with resulting rapid drying, may cut test weight, lower grade and reduce viability.

Soybeans saved for seed demand special attention following unfavorable growing and harvesting seasons. For one thing, according to Cartter, that means careful testing next spring to increase the chances for a good stand. If it is necessary to buy seed, he says to be sure to get a variety well suited to the locality, a question to which the county agent and the State college or experiment station can usually give the answer.

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WEEKLY NEWS SERVICE
EXCLUSIVE TO EXTENSION EDITORS
United States Department of Agriculture
In All States

FILLER FACTS ABOUT ELECTRICITY

For every dollar invested in building rural co-op power systems, consumers spend $4.50 on wiring and equipment.

*****

Daylight-type bulbs are handy for laundry rooms because they make it easier to detect spots and stains.

*****

Wiring specialists advise posting a diagram of your wiring circuits by your fuse box to help spot the trouble when a fuse blows.

*****

About 2¼ million rural families in the U. S. still do not have electricity.

*****

One kilowatt-hour of electricity will pump a thousand gallons of water from the average farm well.

*****

Applications for loans to build rural power lines are coming into REA at the rate of a million dollars a day.

*****

Dark lamp shades absorb light. The same bulb will give 50 percent more light with a white or ivory shade.

*****

No part of the living room baseboard should be more than 6 feet from a convenience outlet, since most appliance and lamp cords are 6 feet long.

*****

Overheating shortens the life of an electric iron.

*****

If she gets all the water she wants, a cow will give 8 to 15 percent more milk.

*****

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Electrical specialists estimate that one kilowatt-hour of electricity, costing a few cents, will do as much work as a strong man working hard 24 hours.

*****

An electric milker cuts down milking time about one-third, according to the agricultural specialists.

*****

More than 84 percent of the farms in North Dakota still did not have central station electric service on June 30, 1947.

*****

The Smithsonian Institution estimates that it would take 30 times as many hard-working slaves as we have population to do the jobs electricity is now doing in America.

*****

If your iron cord is detachable, disconnect it at the convenience outlet -- not at the iron.

*****

All wiring on electric systems financed by the REA must be installed in accordance with the National Electrical Code.

*****

U. S. farmers use electricity in more than 350 different ways.

*****

A foot-candle, the unit for measuring light, is the amount of light produced by the flame of a standard candle on a surface a foot distant.

*****

A 100-watt bulb gives more light than two 50-watt bulbs.

*****

Home planner's note: A good height for placing the convenience outlet for the washer, electric iron, or ironer is about 40 inches from the floor.

*****

Electric pig brooders cut losses of baby pigs about one-half -- by providing them with a safe way of keeping warm without getting crushed by the sow.

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Bare light bulbs cause glare. They should not be used without shades except in little-used parts of the house.

*****

Farmers keep giving electricity more work to do. Last year, rural consumers, on REA-financed power lines, used an average of 123 KWH monthly as compared to 114 KWH monthly the year before.

*****

When an REA co-op finishes repaying its government loan, the electric system becomes the property of co-op patrons who paid for it through their electric bills.

*****

A ceiling of dark color absorbs light; a shiny surface causes glare. Ceilings with a light, flat finish are recommended by REA lighting specialists.

*****

REA-financed electric systems have brought power to 22,000 rural schools.

*****

More than 200 kinds of lamps are used in American homes for a wide variety of purposes.

*****

Rural electrification progressed at a record rate between June 30, 1946 and June 30, 1947, with almost 400,000 farms hooked up to power lines for the first time.

*****

Fuses are safety valves for your electric system. Never replace a blown fuse by a coin or a wrong-size fuse.

*****

For a yard light, REA lighting experts advise a 100-watt to 200-watt bulb in a shallow, weatherproof reflector.

*****

Although REA co-ops broke all previous records in building new power lines during the fiscal year 1947, there was still a backlog of $278,000,000 in loan applications at the end of the year.

*****

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Nearly 300,000 rural consumers were hooked up to REA-financed lines between June 30, 1946 and June 30, 1947.

*****

When buying a daylight-type bulb, get a size brighter than the ordinary bulb you would use for the same purpose.

*****

When REA was established 12 years ago, 10 percent of the farms had electricity as compared to 61 percent receiving electric service today.

*****

Safety specialists warn against using pull-chain switches unless they contain an insulating link or cord.

*****

By June 30, 1947, more than 1,800,000 rural consumers were receiving electric service from REA-financed distribution systems.

*****

Operations of REA-financed rural electric systems have paid nearly $20,000,000 ahead of schedule on debt retirement.

*****

Sunlamps have been used successfully in experiments by shirt manufacturers to bleach out scorch caused by too hot an iron.

*****

Despite recent progress in rural electrification, nine states report that they each have more than 100,000 farms unserved by central station electric power.

*****

Electricity is measured in watts in honor of James Watt, the Englishman who invented the steam engine. A kilowatt (1,000 watts) of electric power is about the same as 1 1/3 horsepower (hp).

*****

Safety tip: Don't let the braid of insulation on electric cords get frayed or worn. Repair or replace immediately.

*****

The first central station electric system was the Pearl Street Plant built by Thomas A. Edison in New York, which went into service in 1882.

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Milk should be kept in a cold part of your electric refrigerator. Don't leave it on the table for long periods while cooking or eating.

*****

Electric appliances should be connected to wall outlets -- not to drop cords or lamp sockets ,

*****

Safety tip: Disconnect electric appliances as soon as you finish using them.

*****

One way to take out "life insurance" on your electric appliances is to store them in a clean, handy, dry place where they will be protected from falls.

*****

Reminder from REA home electrification specialists: Pull on the plug, not the cord, when disconnecting an appliance.

*****

When buying electrical appliances, look for the Underwriters' Laboratory (UL) seal which shows that it has passed safety tests.

*****

Warm food should be allowed to cool before they are stored in an electric refrigerator.

*****

Co-ops have pioneered in bringing large-scale electric power to rural areas, about 95 percent of REA-financed electric systems have been built cooperatively by local groups.

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WEEKLY NEWS SERVICE
EXCLUSIVE TO EXTENSION EDITORS
United States Department of Agriculture
In Illinois, Indiana, Iowa, Ohio, Missouri, Nebraska, South Dakota and Wisconsin

Hawkeye, New Soybean, May Crowd Lincoln Lead

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The big soybean area of the Middle West has a new variety, the Hawkeye, which is so well adapted to the prairie area that it is expected to compete strongly with the still new but already widely grown Lincoln variety. Developed by the U.S. Department of Agriculture and the Iowa Agricultural Experiment Station, it has been tested during the past eight years in cooperation with the Agricultural Experiment Stations of Ohio, Indiana, Illinois, Missouri, Iowa, Nebraska, South Dakota, and Wisconsin.

The Hawkeye, according to J.L. Cartter, head of the U.S. Regional Soybean Laboratory, Urbana, Ill., is the result of a number of selections from a cross between the varieties Mukden and Richland, It does well not only in the Lincoln area but also a little farther north in the areas that grow the Richland. Another good point in its favor is that it may be used as an early variety that can be out of the way in plenty of time for sowing winter wheat.

Hawkeye matures about as early and grows four to six inches taller than Richland, stands up well, has two large, round, yellow seeds to the pod, and shatters almost not at all. Tests over four years gave an average yield of 32.1 bushels an acre, compared with 33.2 for Lincoln, 28.3 for Richland and 29.5 for Mukden. Its oil content has averaged 20.6 percent compared with 20.7 percent for Lincoln, and 20.2 for Richland and 19.4 for Mukden.

Seed of the Hawkeye is being distributed by the various interested States as rapidly as the increase permits.

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United States Department of Agriculture

DEC 17 1947
U. S. DEPARTMENT OF AGRICULTURE

In New Mexico, Texas, Louisiana, Oklahoma, Arizona

Benzene Hexachloride Useful in Ear Tick Treatment

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Effective use of benzene hexachloride (with xylol and pure pine oil) as an agent for rapid destruction of spinose ear tick among cattle under confined conditions in the Southwest, and its value in prevention of reinfestation for a minimum period of 17 days, is reported by workers in the Bureau of Animal Industry, U. S. Department of Agriculture. The work was done partly in cooperation with State Experiment Stations and it was performed near Albuquerque, N.M. during 1945-47.

The animals involved in the tests numbered 3,178 cattle, chiefly range Herefords, but including some feeders and dairy stock. Detailed studies were made on 10 small ranches in or adjacent to the Rio Grande valley, where the ear tick has been a frequent pest and where control measures have not usually been successful, especially in preventing reinfestation. Some remedies have been found irritating and almost worthless.

In almost every case the entire herd was treated and control animals, when needed, were examined on bordering farms. In all but one instance, the cattle were confined in corrals or irrigated pastures. It is believed that the effects of the ear tick are somewhat less harmful with cattle out on the open ranges than with those on pastures or in corrals. It was found desirable to continue the common practice of spraying the underside of salt troughs and the adjacent ground with a larvacide to help prevent further infestation, in addition to the application of material inside the ears of cattle.

Preparations consisting of benzene hexachloride with xylol and pure pine oil readily destroyed all the spinose ear tick larvae and nymphs in the ears of cattle

(more)

and also afforded protection from a second infestation for at least 17 days. This mixture caused no injury to the animals, flowed freely in cold weather and generally met with the approval of stockmen, the report states.

The mixture used was more effective as a repellent in the ears than all other tested materials, including DDT. Apparently, the workers state, part of the residual effect of benzene hexachloride is due to its fumigant properties. It was also noted that benzene hexachloride used in the tests was at a rate in excess of its minimum effective quantity.

Materials were injected from ordinary spring-bottom oilers, with their spouts cut down to a 3/8 inch opening. Two-inch lengths of soft rubber tubing were drawn over the spouts to protect against injury to the linings of the ears from the sharp edges of the spouts. One-half ounce of the material was placed in each ear, after which the ear was massaged to secure thorough distribution of the medicament. Animals were considered free of infestation when, upon examination within a few hours and at later intervals, it was found that all nymphs and larvae were destroyed. Arrival of the first larvae in the ear of any animal was noted to check re-infestation, although daily counts could not always be made. Further trials to perfect this treatment and find other suitable combinations are under way.

The spinose ear tick is one of the worst common parasite pests of cattle in New Mexico and other parts of the Southwest. In cases of extremely heavy infestation, as many as 75 larvae and nymphs in various stages of development and engorgement have been taken from a single ear. Calves born under such environment and under confinement become infested with the pest within 3 or 4 days after birth.

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WEEKLY NEWS SERVICE

EXCLUSIVE TO
EXTENSION EDITORS

United States Department of Agriculture

In California, Illinois, Nebraska, Wisconsin, Minnesota, Iowa, Indiana, Ohio, New York, Vermont, Massachusetts and Texas.

MILKER'S EFFICIENCY CLOSELY TIED IN WITH DESIGN OF BARN

Most dairymen could save both steps and time in daily milking operations if their barns and equipment were more conveniently arranged, says Thayer Cleaver of the U.S. Department of Agriculture.

Speaking before the American Society of Agricultural Engineers in Chicago, December 17, Mr. Cleaver reported on preliminary results of time and motion studies in various labor operations in dairying, a research project carried on jointly by the Department and the Illinois Agricultural Experiment Station.

An analysis of equipment and operations in four parlor-pen and five stanchion-type dairies studied, all but one of which used milking machines, showed that travel per cow was highest in the smallest dairy because the operator took the milk from each cow directly into the milk house. The record for lowest man minutes per pound of milk went to an operator who was able to handle three milking machines instead of two. Mr. Cleaver said every dairy could be improved and that most operators recognize this and are anxious to work out better procedures for efficient milk production.

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